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IN THE

Supreme Court of the United States

OCTOBER TERM, A. D. 1946

No. 953

THE SANITARY DISTRICT OF CHICAGO,
Petitioner,

vs.

ACTIVATED SLUDGE, INC., ACTIVATED SLUDGE, LTD., EDGAR C. GUTHARD, CARL W. JOHNSON, ALBIN C. AHLBERG, ARTHUR D. BRADBURY, CLIFFORD C. BRADBURY, CLIFFORD C. BRADBURY as Assignee of DOROTHY F. BRADBURY, Deceased, WILBURN F. BRADBURY, EVA B. CAMP, CLAIRE M. FAIRBANKS as Assignee of ARTHUR B. FAIRBANKS, Deceased, SAMUEL B. FLEAGER, FRANCES F. JOHNSON, NINA JOHNSON, ALBERT G. McCALEB, RUTH F. McCALEB, FRANKLIN MAYO, GERTRUDE A. REINKE, PATRICIA M. WILLIAMS and LYNN A. WILLIAMS, JR.,
Respondents.

PETITION FOR WRIT OF CERTIORARI AND BRIEF IN SUPPORT THEREOF.

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Respondents.

PETITION FOR WRIT OF CERTIORARI.

To the Honorable the Chief Justice and Associate Justices of the Supreme Court of the United States:

Statement of the matters involved.

This is a patent case involving novel propositions of law relating to both the validity of the patents in suit and the accounting of damages. At the outset it will appear that

the interlocutory decree of validity and infringement of the patents in suit should be devitalized on account of the conspiracy and unconscionable conduct of respondents in instituting and in carrying on this litigation.

Petitioner, a municipal corporation of Illinois, whose corporate limits embrace all of Chicago and most of its suburbs, seeks a review by this Court of the decision (157 F. (2d) 517—October 28, 1946, R. I, 903*) of the Circuit Court of Appeals of the Seventh Circuit affirming the final judgment and decree (R. I, 73) of the District Court for the Northern District of Illinois, Eastern Division, including the interlocutory decrees leading up to the final decree.

The Court of Appeals did not write and file an opinion but merely adopted by reference the opinion of the District Court (64 F. Supp. 25, R. I, 52).

The judgment affirmed, entered February 19, 1946, is in the sum of $950,000 as general damages by way of reasonable royalty as the result of the accounting trial directed by the interlocutory decree of February 8, 1935 (R. I, 3) adjudging one of the patents sued upon invalid and the other five patents valid and infringed by two small experimental plants and one large sewage treatment plant of petitioner.

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* Roman numerals indicate the Volume of the Printed Record and arabic numerals indicate the page of the Volume.

The large Record in this case has been filed in compliance with the Rules but consideration of the points presented in this petition, and which will be argued on the merits should this petition be granted, requires only limited examination of the Record.

I.

THE INTERLOCUTORY DECREE OF VALIDITY AND INFRINGEMENT SHOULD BE DEVITALIZED BECAUSE OF THE CONSPIRACY AND UNCONSCIONABLE CONDUCT OF RESPONDENTS IN INSTITUTING AND IN CARRYING ON THIS LITIGATION.

Once again it becomes necessary for this Court to clarify, for the benefit of the Seventh Circuit and the other Circuits, the rule proclaimed in

> *Keystone Driller Co.* v. *General Excavator Co.*, 290 U. S. 240, and
> *Hazel-Atlas Glass Co.* v. *Hartford Empire Co.*, 322 U. S. 238,

that no recovery will be allowed in a suit to enforce patent rights when the plaintiff has been guilty of unconscionable conduct in regard to procurement of his patent or enforcement of his rights thereunder. Two years ago in

> *Precision Instrument Mfg. Co.* v. *Automotive Maintenance Mach. Co.*, 324 U. S. 806,

this Court reversed the Seventh Circuit Court of Appeals and made it clear that no recovery would be allowed when the patent in issue was granted as the result of perjury and fraud committed in the Patent Office. The court below now construes these authorities to mean that they are not applicable when the fraud and suppression of evidence were perpetrated upon the Federal Courts in an action to enforce patent rights, but are applicable only when the fraud was practiced upon the Patent Office or affects the validity of the patent itself.

The distinction made by the District Court between the significance of fraud and suppression of evidence when

practiced upon the Federal Courts rather than the Patent Office is so incredible that we quote from the District Court's unreported opinion to substantiate our statement:

> "If issuance of a patent is procured by fraud, the public grant is invalidated. That is the reasoning of the Supreme Court and I think it is sound. • • • But there is no question here of the validity of these patents. • • • They do not bring this case within any of the Supreme Court decisions. This isn't a case where the patent, a property right granted by the United States, by virtue of an Act of Congress, is sought to be invalidated."

The facts on this point bring this case within the doctrine announced by this Court in the cases cited above. They are set forth in Paragraph 4 of a petition filed by petitioner on June 18, 1945 (R. I, 9-33) which was stricken by order of the District Court on June 30, 1945 (R. I, 35). Petitioner made an offer during the accounting trial to prove the facts set forth in said Paragraph 4 but objection thereto was sustained (R. I, 487). In the formal opinion by the District Court, which was adopted by the Court of Appeals, this point is not accorded the barest reference.

Prior to the decisions of this Court in the last two cases cited above and immediately after petitioner discovered the active suppression of important evidence by respondents, petitioner prayed for leave to file in the District Court a petition setting forth the facts then recently brought to light relating to respondents' unclean hands (R. II, 3-102). The District Court without hearing any evidence denied leave to file the petition (R. III, 885) and this denial was affirmed by the Court of Appeals which stated that the trial court had heard "voluminous evidence" (R. III, 920). This Court denied certiorari (313 U. S. 583) but it may be assumed that certiorari was denied because it

was sought to be taken from an interlocutory order (*Hamilton-Brown Shoe Co.* v. *Wolf Bros. & Co.*, 240 U. S. 251, 258).

Inasmuch as petitioner's petitions sought to be filed in the District Court were stricken as insufficient in law, the allegations of fact therein contained must be taken as true for the purpose of reviewing the decision of the court below. These facts reveal that this suit was instigated by Albert W. Dilling, who was Chief Engineer of petitioner from December 16, 1920 to July 21, 1922, and that Dilling, from the inception of this suit and down to date, has had a substantial interest in this cause of action (R. I, 8-15, 249). Dilling's relationship to and interest in this case have been carefully concealed from petitioner and the courts by means of a conspiracy among the respondents and their then attorneys (R. I, 13-18).* This conspiracy was carried out with complete success for the first 14 years of the pendency of this case (its age being entirely attributable to respondents' tactics) and was discovered by petitioner only as the result of litigation instituted by Dilling against his co-adventurers when they later attempted to eliminate him from the venture (R. I, 18-20).

The conspiracy had two principal objects. One is candidly stated in a letter from McCaleb (one of the co-adventurers with Dilling, one of the respondents and until recently one of their attorneys) to Activated Sludge, Ltd., another respondent and the then owner of the patents, as follows (R. I, 711):

> "Subject to your approval we would prefer not to have Mr. Dilling a party to the formal agreements with you. This is merely because we would expect to use Mr. Dilling as an expert witness. His value in that

* The unconscionable conduct here referred to occurred before the present attorneys of respondents appeared in this case.

connection would be enhanced if his interest did not appear of record."

Another object of the conspiracy was to conceal Dilling because respondents feared that if his relationship to this case became known to petitioner, petitioner would have a defense of unclean hands arising out of the fact that this cause of action was instigated and partially owned by one of its former officers who organized the venture (R. II, 9).

In furtherance of the conspiracy to conceal Dilling, respondents resorted to false notices, false pleadings, perjured testimony, misleading statements by counsel, destruction of evidence and suppression of relevant documents. These charges are fully shown by the facts set forth in the petitions referred to above (R. I, 14-18; II, 9-36). During Dilling's incumbency as Chief Engineer of petitioner, the two small infringing plants of petitioner were completed and placed in operation. In accordance with Dilling's recommendation, the activated sludge method involved in the patents in suit was adopted for the infringing North Side plant, and Dilling commenced the preparation of plans and the letting of contracts for the construction of said plant (R. I, 9-11). While employed by petitioner, Dilling corresponded with the English owners of the patents in suit and for the first time became aware of the vulnerability of petitioner to litigation involving said patents in suit (R. II, 266, 270-3) and thereafter initiated the course of reprehensible conduct briefly described in this petition and more fully set forth in the brief attached hereto.

Less than one year after Dilling left petitioner's employment, he journeyed to England and conferred with Activated Sludge, Ltd. respecting "the development of this Process in America, and particularly with regard to Chicago" (R. I, 705). Upon returning to Chicago, Dilling

interested McCaleb, who in turn secured two financiers, Edgar C. Guthard and Franklin Mayo, to back the joint adventure organized to collect through litigation and otherwise on activated sludge patent infringement claims against petitioner (R. I, 11). Having concluded at the outset that Dilling's relation to the enterprise must be concealed from petitioner, respondents embarked upon a program not only of concealing Dilling's interest but also of preventing any suspicion from arising which might induce petitioner to make any inquiries. The first agreement entered into between the four individuals, Dilling, McCaleb, Guthard and Mayo, under date of May 29, 1924, provided that Guthard was to go to London to negotiate a license agreement with Activated Sludge, Ltd. but that any agreement entered into by Guthard would be for the benefit of all and that any title he held would be as trustee for himself and the other parties to the agreement (R. I, 12). When Guthard obtained a license agreement from Activated Sludge, Ltd. on June 23, 1924, it ran to him as an individual and did not disclose his trust capacity (R. I, 13). This was to be the muniment of title upon which litigation could be predicated without revealing Dilling's interest. However, as soon as Guthard returned to Chicago another agreement was entered into under date of July 25, 1924 by which the four individuals formed a Massachusetts trust called "Activated Sludge Processes of America", under which all interest in the license agreement was assigned to Guthard as trustee and under which each of the four individuals had a one-fourth beneficial interest (R. I, 13).

Notice of infringment was served upon petitioner and this suit was filed against petitioner by Guthard without disclosing his trust capacity (R. I, 15). During the trial which led to the entry of the interlocutory decree, Mayo

and Guthard testified that Activated Sludge Processes of America was an oral arrangement between themselves and McCaleb and that each had a one-third interest (R. II, 23). When, in the action later brought by Dilling against his associates, Mayo and Guthard were confronted with their testimony in this case, they were compelled to admit that they had not told the truth (R. II, 31-2). We shall not elaborate upon the details of the conspiracy and its execution. Sufficient has been said to make it evident that the action taken by the court below in refusing to consider or allow petitioner to offer any evidence to prove the allegations contained in the petitions referred to above requires that this Court exercise its supervisory jurisdiction.

One phase of respondents' unclean hands, namely, that the evidence fraudulently suppressed by respondents reveals that this suit was instigated, filed and prosecuted through the action of one (Dilling) who while employed by petitioner learned the facts concerning petitioner's vulnerability to patent litigation, gives rise to a complete defense to this action. In refusing to uphold this defense, the decision of the court below is in conflict with that of *Trice* v. *Comstock,* 121 Fed. 620 (C. C. A. 8). This is the only phase of respondents' unclean hands considered by the courts below in their former opinions on this subject, although the case of *Trice* v. *Comstock* is not referred to in those opinions (33 F. Supp. 692; aff. 118 F. (2d) 899).

However, the most important aspect of respondents' unclean hands is that the acts of suppression and fraud *in themselves,* without regard to the sufficiency of the fraudulently suppressed evidence in constituting a defense to this case, involve such reprehensible conduct as to bar the door of a court of equity to respondents. This phase of respondents' unclean hands is not mentioned in the opinions

of the courts below (R. III, 885, 920) and no attempt is made to distinguish it from the authority of *Keystone Driller Co.* v. *General Excavator Co.*, 290 U. S. 240.

Sedulous as this Court should be to limit the scope of its jurisdiction, the function of this Court in settling conflicts between the courts on principles of law and in proclaiming important principles of federal law is not so vital, we respectfully submit, as the necessity of upholding the integrity of the federal judicial process at all times. As evidenced by the decisions of the Courts of Appeal in the *Hazel-Atlas* and *Precision Instrument* cases, the lower courts may be less sensitive than the Supreme Court to the sordid behavior of parties and counsel and it becomes the sacred prerogative of the Supreme Court to strike down such pernicious practices whenever they are brought to its attention. Ignored even once, such corruption will grow like a neglected cancer and undermine our judicial system.

II.

THE FINAL JUDGMENT ON THE ACCOUNTING IS ENTIRELY BASELESS.

Of the many errors committed by the court below in entering judgment on the accounting, we have selected three involving legal questions of general interest and importance which should be settled by this Court and which are not based on any disputed evidence but relate to the applicability of important precepts of law.

Although the court below concluded that the damages by way of reasonable royalty could not be increased under the statute* for the reason that punitive or exemplary

* 35 USCA, Sec. 70: "The court shall have the same power to increase such damages, in its discretion, as is given to increase the damages found by verdicts in actions in the nature of actions of trespass upon the case".

damages cannot be assessed against a municipal corporation (R. I, 68-70), the judgment includes an unstated amount referred to by the court as "extra damages". The phrase "extra damages" cannot be found in the law dictionaries of Bouvier or Black. According to the court below these "extra damages" include (R. I, 70):

> "* * * damages purely compensatory which are elusive but which plaintiffs ought to recover, not as punishment but as reimbursement for what plaintiffs have actually lost. * * * In this connection I have not given weight to the amount of fees of counsel but have considered the fact that the plaintiffs have been compelled to sustain long and expensive litigation."

The motivation for the court's awarding of something that it called "extra damages" is indicated by Finding of Fact 48 (R. I, 50):

> "Defendant was a persistent and deliberate infringer and this is another factor which may be taken into consideration in assessing general damages in this suit."

Whatever the courts below had in mind is unknown but they could not have employed the term "persistent and deliberate infringer" in its ordinary sense because one of the patents in suit was held invalid and certain claims of the valid patents were held not infringed (R. XI, 5076). Moreover, the courts below were bound to recognize, as is shown in petitioner's exhibit A-126 (R. I, 835), that most of the long delay in this case was caused by respondents. While the suit was filed in 1924, respondents did not complete their pleadings until several years thereafter and inasmuch as they chose to try the Milwaukee case first, they did not start the trial here on the validity and infringement issue until 1932. After the affirmance in 1937 of the interlocutory decree, respondents delayed the accounting proceedings, probably on account of an order

in the suit filed by Dilling against his co-adventurers and others restraining respondents until disposition of that suit, and in 1945 it was the petitioner who, in the interest of expediting the proceedings, filed a petition to define the issues on the accounting. The delay in bringing this long pending case to completion is directly chargeable to respondents and not to petitioner.

There is no precedent in the law for the award of "extra damages" in addition to the reasonable royalty. The court below concluded that reasonable royalty was the measure of the damages in this case (R. I, 51) and there is no room for any additional amount. Inasmuch as the court below held that this was not a case in which exemplary damages could be awarded against an infringer for persistent and deliberate infringement, there was no warrant for taking into consideration the alleged persistent and deliberate infringement as a factor in assessing the damages.

The only money which respondents lost in addition to reasonable royalty was their attorneys' fees and interest upon the royalty which might have been paid at the commencement of the infringement. It has been well established by this Court, however, that attorneys' fees are not recoverable in a patent infringement suit and that interest is not allowable on the reasonable royalty until its amount is liquidated.

By introducing an unsound concept into the law of damages in patent infringement cases, the Seventh Circuit Court of Appeals has created uncertainty and confusion which should be resolved by this Court without delay.

Ancillary to our major proposition is the point that the findings of the court below (R. I, 36-71) violate Rule 42 of the Rules of Civil Procedure relating to the character of the findings to be made by the court as interpreted in

Kelley v. *Everglades Drainage District,* 319 U. S. 415, 420, 421.

An accounting trial should result in a series of figures which add up to the amount of the judgment. In order that the findings of fact may be of any value to a reviewing court, the trial court must itemize the various figures which enter into the sum total of the judgment.

Nowhere in the opinion or findings of the court below is there any intimation as to the amount of the reasonable royalty or the amount of the "extra damages". The figure of $950,000, the amount of the judgment, cannot be found anywhere in the evidence and it cannot be deduced from any combination of figures in the evidence.

Another outstanding error of the court below is that the judgment is not based upon any tangible evidence. This is in conflict with decisions of this Court and other Circuits holding that the court should base its determination of reasonable royalty on "something tangible" and "we cannot conjure figures from our own minds".

The only evidence in the record on the basis of which the reasonable royalty could be determined is found in petitioner's evidence. This evidence revealed that prior to the commencement of the infringements involved here, respondents had established a "Standard Royalty Charge" (R. I, 727) for the five patents in suit together with six other related patents and had negotiated with and offered to license various American municipalities pursuant to such established royalty (R. I, 704-6, 715-6, 722-7, 742-5, 753-793, 799-806). The evidence was uncontradicted that according to such Standard Royalty Charge the royalty for licenses under all eleven patents for the three infringing plants involved would not have exceeded $90,000 (Def. Ex. A-116, a copy of which is attached to our brief as Appendix "A"). Two qualified witnesses testified that the reasonable royalty was approximately $50,000 (R. I, 432-4, 482-3). Respondents offered no opinion evidence.

III.

THE INVALIDITY OF THE PATENTS IN SUIT.

The decision of the court below relating to the validity of the patents in suit requires that the Supreme Court exercise its supervisory jurisdiction in order to settle important questions of patent law. This can be done without reviewing or weighing the evidence but simply by studying the patents and the opinions of the courts below.

The patents in suit have not been judicially considered anywhere except in the Seventh Circuit and will not be considered anywhere else because there are no other suits pending and the statute of limitations prevents the filing of any new suits. This is the only case involving any of the patents in suit in which final judgment was entered by the Court of Appeals.* Because a conflict of decisions between the Circuits regarding validity of the patents in suit cannot ever arise, this Court should grant certiorari as it has done in similar cases.**

One of the principal issues in this case is whether Jones, the patentee, was the inventor. All of the patents in suit are based on applications filed by Walter Jones of England, who claimed to be the inventor of the process and apparatus involved (69 F. (2d) 577, 582).

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* Denial of *certiorari* in the Milwaukee case (293 U. S. 576) and this case (302 U. S. 736) is not significant because the petitions were filed in respect to interlocutory orders.

** *Muncie Gear Works* v. *Outboard, Marine & Mfg. Co.*, 315 U. S. 759, 765, 766. " * * * we granted *certiorari* in view of the questions presented and because the patent dominates a substantial portion of an industry so concentrated in the Seventh Circuit that litigation in other Circuits, resulting in a conflict of decisions, is unlikely."
Schriber-Schroth Co. v. *Cleveland Trust Co.*, 305 U. S. 47.
Mackay Radio & Telegraph Co. v. *Radio Corp. of America*, 306 U. S. 86, 89.

The so-called activated sludge process constitutes an improvement in the purification of sewage by means of aeration. It has long been known that purification of sewage may be accomplished through aeration. Aeration encourages the growth of aerobic bacteria which reduce the putrescible material in sewage to innocuous forms. However, aeration alone is too slow and expensive to make it practical for the treatment of large quantities of sewage. The invention, if there be any, involved in the activated sludge process lies in the biochemical discovery that if the flocculent masses of aerobic bacteria (called activated sludge) which settle at the bottom of a tank after repeated aeration are introduced into raw sewage and thoroughly mixed with the same, the process of purification is accelerated (69 F. (2d) 577, 581).

The court below found that this biochemical process was discovered by certain English chemists but that they did not translate their laboratory findings into commercial success. The court found that Jones, a pipe manufacturer, translated the scientific biochemical discovery into commercial success and was therefore to be credited with invention (69 F. (2d) 577, 583-587). The question presented is whether reduction to practice on a laboratory scale is sufficient to show prior use or whether it is necessary that the reduction to practice be on a commercial scale. It is our contention, supported by a leading case of this Court, that a practical manufacturer does not acquire the ingredients of authorship of invention required of a patentee when he borrows and develops on a commercial scale the newly discovered process of a scientist who succeeded in practicing the process in his laboratory.

If the court below had ascribed invention of the process to the scientists who conceived it rather than to Jones, the

process patents in suit would have been invalidated, leaving only the one apparatus patent. So far as the apparatus patent is concerned, the two claims allowed are invalid on their face. Claim 2 of Patent 1,282,587 relates only to "means for introducing air or oxygen at the lower part of the tank" and Claim 8 is likewise defective in defining the invention claimed in functional language (R. XI, 5141). The claims are so broad that they include the introduction of compressed air through perforated pipes, acknowledged by Jones to be part of the prior art (R. XI, 5537). These claims are defective in that they fail to point out and distinctly claim the part, improvement or combination claimed as invention.

The only explanation for the decision of the court below upholding the apparatus patent is that the court below —as it states—considered the patents collectively. The collective consideration of patents has been condemned by this Court in several cases decided since the decision of the court below in the *Milwaukee* case.

Jurisdiction of this Court to review the decree in question.

The jurisdiction of this Court is invoked under Section 240(a) of the Judicial Code as amended by an Act of February 13, 1925, c. 229, 43 Stat. 938, 28 USCA, Sec. 347 (a). The decree which the petitioner seeks to have reviewed was entered by the Court of Appeals of the Seventh Circuit on October 28, 1946 (R. I, 904).

The questions presented.

1. Did the court below properly strike petitions sought to be filed by petitioner, and refuse to allow petitioner to offer any evidence, relating to the unclean hands of respondents in the suppression and concealment of evidence?

2. Should not the interlocutory decree entered herein be devitalized and respondents denied the right to recover monetary damages as the result of the unconscionable, fraudulent and reprehensible conduct of which they have been guilty?

3. In view of the conclusion by the court below that a municipal corporation such as petitioner cannot be assessed with exemplary or punitive damages, did not the court below err in including in the judgment on the accounting, in addition to the undisclosed and undetermined amount of the reasonable royalty, an unstated amount for "extra damages" based on elements which can be considered by the court only in increasing the damages under the statute by way of exemplary or punitive damages?

4. Are the Findings of Fact of the court below sufficient under the Rules of Civil Procedure in view of their failure to contain the items which aggregate the amount of the reasonable royalty or judgment and their references to what the evidence shows instead of stating the findings of the court?

5. Did not the court below err in determining the amount of the judgment on evidence of a general nature which did not convert the value of the patents or license thereunder into dollars and cents and in ignoring the tangible evidence introduced by petitioner?

6. Is one who translates a scientific discovery into commercial success entitled to a patent when the discovery was first reduced to practice on a laboratory scale by scientists who disclosed the discovery to the public?

7. Is the claim in an apparatus patent of "means for introducing air or oxygen at the lower part of the tank" (R. XI, 5141) a sufficiently distinct and definite disclosure of the element claimed as invention in order to render it a

valid claim under the Patent Act and may apparatus claims be stated in functional language (35 USCA Sec. 33)?

8. Is it proper to consider patents collectively in order to sustain their validity?

Reasons for the allowance of the writ.

1. The decision of the court below is in conflict with the decisions of this Court on an important principle of federal law as proclaimed in the following cases:

Keystone Driller Co. v. *General Excavator Co.*, 290 U. S. 240.

Hazel-Atlas Glass Co. v. *Hartford Empire Co.*, 322 U. S. 238.

Precision Instrument Mfg. Co. v. *Automotive Maintenance Mach. Co.*, 324 U. S. 806.

It is necessary for the Court, by reversing the Seventh Circuit Court of Appeals in this case, to make it unmistakably clear that the principles announced by this Court in the above cases constitute canons of equity jurisprudence in Federal Courts exacting of litigants the highest standard of conduct, particularly in respect to the conduct of a patentee in an infringement action, and that the rules are not less stringent because the sullied and unconscionable conduct took place in the Federal Courts rather than in the Patent Office.

2. Whenever a party has been guilty of unconscionable or inequitable conduct in carrying on litigation to enforce patent rights and such party has obtained a decree or judgment in his favor in such litigation, this Court should exercise its supervisory jurisdiction to review such decree or judgment without regard to the fact that this Court may have made clear its condemnation of similar inequitable and unconscionable conduct.

3. The decision of the court below in awarding, in a case in which exemplary or punitive damages could not be awarded, "extra damages" in addition to the amount of the reasonable royalty, based on the cost of this litigation, loss of interest and other elements, is in conflict with the decision of this Court in

Duplate Corp. v. *Triplex Safety Glass Co.*, 298 U. S. 448,

which held that interest should run on the reasonable royalty only from the date when the amount is liquidated, and with

Teese v. *Huntingdon*, 23 How. 2,
Oelrichs v. *Spain*, 15 Wall. 211,
Day v. *Woodworth*, 13 How. 363,

which held that attorneys' fees are not a proper element for consideration in determining the damages in patent infringement cases. There is no precedent for this unique and, we submit, fallacious rule of damages and this Court should reverse the court below to prevent the development of a body of bad law based on the precedent of the opinion below.

4. In failing to state the items which comprise the amount of the judgment and to make findings on the evidence, the court below failed to comply with the Rules of Civil Procedure and the principles stated by this Court in

Kelley v. *Everglades Drainage District*, 319 U. S. 415, 420, 421.

5. The decision of the court below is in conflict with the decisions of this Court in

Rude v. *Westcott*, 130 U. S. 152, 167, and
Philp v. *Nock*, 84 U. S. 460, 462

and the decision of the Sixth Circuit Court of Appeals in

Horvath v. *McCord Radiator & Mfg. Co.*, 100 F. (2d) 326, 336

and the decision of the Second Circuit Court of Appeals in

Cincinnati Car Co. v. *N. Y. Rapid Transit Corp.*, 66 F. (2d) 592, 595

holding that "actual damages must be calculated, not imagined."

6. The patents in suit have not been considered in any circuit other than the Seventh Circuit. All other litigation respecting the patents in suit has been disposed of and no new suits can be brought. This is the first time that petition for certiorari from a final decree involving the patents in suit could have been submitted to the Supreme Court. Because a conflict of decisions between the circuits regarding validity of the patents in suit cannot ever arise, certiorari should be granted on analogy to:

Muncie Gear Works v. *Outboard, Marine & Mfg. Co.*, 315 U. S. 759, 765, 766

Schriber-Schroth Co. v. *Cleveland Trust Co.*, 305 U. S. 47

Mackay Radio & Telegraph Co. v. *Radio Corp. of America*, 306 U. S. 86, 89.

7. The decision of the court below in holding that reduction to laboratory practice by scientists who published their discovery was not sufficient to prove anticipation and that one who later obtained the disclosure from the scientists and translated the scientific discovery into commercial success was entitled to obtain patents on such discovery, is in direct conflict with the decision of this Court in *Corona Cord Tire Co.* v. *Dovan Chemical Corp.*, 276 U. S. 358.

8. The decision of the court below in upholding the apparatus patent in suit, claim 1 of which relates to "means for introducing air or oxygen at the lower part of the tank" and claim 8 of which is also expressed in func-

tional language, is at variance with the decisions of this Court interpreting the statutory requirement of particularity and definiteness in patent claims, as exemplified by the recent case of *Halliburton Oil Wells Cementing Co.* v. *Walker,* 91 L. ed. 15, and by *General Electric Co.* v. *Wabash Appliance Corp.,* 304 U. S. 364 and *United Carbon Co.,* v. *Binney & Smith Co.,* 317 U. S. 228.

9. The time has arrived for this Court to settle the confusion and uncertainty which obtains concerning the purpose, scope and content of the claims in a patent and their relationship to other portions of a patent. This Court should proclaim, once and for all, that the invention must be distinctly and completely described in the claim as provided by statute and that the claim cannot be limited or broadened by the other portions of the patent.

10. The decision of the court below in collectively considering the patents in suit is in conflict with the decision of this Court in *Altoona Publix Theatres* v. *American Tri-Ergon Corp.,* 294 U. S. 477.

WHEREFORE, your petitioner prays that a Writ of Certiorari be issued under the seal of this Court, directed to the United States Court of Appeals for the Seventh Circuit; that the judgment of the Circuit Court of Appeals be reversed and set aside and final judgment be entered for petitioner with its costs; and that your petitioner be granted such other and further relief as may be proper.

Respectfully submitted,

THE SANITARY DISTRICT OF CHICAGO
By ERNST BUEHLER
EDMUND D. ADCOCK
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ELI E. FINK
Counsel for Petitioner-Defendant.

BRIEF IN SUPPORT OF FOREGOING PETITION FOR WRIT OF CERTIORARI.

Opinions of the Courts below.

The opinions in this case of the District Court for the Northern District of Illinois, Eastern Division, and the Court of Appeals for the Seventh Circuit are listed below in chronological order:

8 F. Supp. 329 (R. XI, 5032): District Court's entry of interlocutory decree.

90 F. (2d) 727 (R. XII, 5792): Court of Appeals' affirmance of above.

33 F. Supp. 692 (R. III, 885): District Court's denial of petition to reopen and vacate interlocutory decree on the basis of newly discovered evidence.

118 F. (2d) 899 (R. III, 920): Court of Appeals affirmance of above.

64 F. Supp. 25 (R. I, 52): District Court's final decree on the accounting.

157 F. (2d) 517 (R. I, 903): Court of Appeals' affirmance of above.

Jurisdiction.

The jurisdiction of this Court is invoked under Section 240 (a) of the Judicial Code, as amended by an Act of February 13, 1925, c. 229 (28 U. S. C. A. Sec. 347(a)). The final decree of the Court of Appeals which petitioner seeks to have reviewed was entered October 28, 1946 (R. I, 904).

Statement of the Case.

The pertinent facts are briefly stated in the foregoing petition and are supplemented in the Argument which follows.

The points presented in the petition and argued in this brief involve legal principles rather than factual issues and relate to the validity of the patents in suit, the soundness of the final judgment entered on the accounting and the refusal by the courts below to permit petitioner to introduce evidence proving that respondents have been guilty of such unconscionable conduct as to bar them from recovery in this suit in equity.

Specification of Errors.

The courts below erred in entering an interlocutory decree holding that five of the patents in suit were valid (R. XI, 5076), in denying petitioner's motion for leave to file its petition to reopen and vacate said interlocutory decree (R. III, 885), in striking paragraph 4 from petitioner's petition, filed on June 18, 1945, to devitalize said interlocutory decree (R. I, 35), and in entering final judgment for $950,000 (R. I, 73).

If this Court should grant its writ of certiorari, petitioner intends to urge as errors of the courts below the matters set forth in the foregoing petition under the heading of "The Questions Presented".

Argument.

Foreword.

In selecting the points for argument in this brief we are avoiding any issues which would require the Court to weigh the evidence or probe into the voluminous Record in this case. In compliance with the rules of this Court we have filed the entire Record but for the purpose of considering the petition for certiorari to which this brief is attached, and the merits of the points we have raised should our petition be granted, it will only be necessary to examine a small portion of the record.

I.

RESPONDENTS SHOULD BE BARRED FROM MONETARY RECOVERY IN THIS CASE ON ACCOUNT OF THEIR SULLIED CONDUCT IN SUPPRESSING AND CONCEALING FROM PETITIONER AND THE COURTS THE EVIDENCE CONCERNING DILLING'S RELATION TO THIS SUIT, AND IT MAKES NO DIFFERENCE HOW SUCH EVIDENCE, HAD IT BEEN KNOWN TO AND INTRODUCED BY PETITIONER DURING THE TRIAL, MIGHT HAVE AFFECTED THE RESULT.

A primarily controlling point in this litigation, and one standing by itself and not necessarily related to any other, involves the corrupt conduct of respondents in conspiring to conceal and suppress, and thereupon in suppressing and concealing evidence relating to the interest of Albert W. Dilling, former Chief Engineer of petitioner, in this cause of action and relating to respondents' unconscionable conduct in this litigation. The essential facts on this point are briefly stated in the petition for certiorari and are more fully set forth in the petition which the courts below re-

fused permission to be filed (R. II, 3-102; R. III, 885, 920) and in paragraph 4 which was ordered stricken from the petition filed by petitioner to define the issues on the accounting (R. I, 9-33).

At this point we shall add a few facts not set forth in the petition for certiorari and refer to certain evidence which was revealed for the first time when discovery depositions were taken in the summer of 1945.*

Less than one year after he left petitioner's employment, Dilling, who theretofore while petitioner's Chief Engineer had corresponded with Activated Sludge, Limited, conferred with it at its London offices respecting "the development of this Process in America, and particularly with regard to Chicago". Dilling is quoted as having stated to Activated Sludge, Limited that he was "able to get in touch with sound financial Corporations in the United States with a view to the purchase of our (Activated Sludge, Ltd.'s) Patent Rights" (R. I, 705). Upon his return to this country he interested Albert G. McCaleb, a member of the law firm which represented respondents until recently, and McCaleb secured the participation of Edgar C. Guthard and Franklin Mayo, who were represented to have large financial responsibility. In his letter of March 27, 1924 to Activated Sludge, Ltd., Dilling stated (R. I, 707-9):

> "As I explained to you at the time of my visit, I have made a careful and special study of sewage treatment methods, which study was of course intensified during the two years that I was Chief Engineer of the Sanitary District of Chicago. * * * I am the one who recommended its use in the North Side Sewage Treat-

* The order of the District Court on June 30, 1945 (R. I, 35) enjoined petitioner from taking any evidence by way of depositions or otherwise bearing on the issues set forth in paragraph 4 of said petition but certain evidence pertaining to the issues of the accounting was obtained by depositions which indirectly related to the matters set forth in paragraph 4 of said petition.

ment Works now being constructed here in Chicago. My judgment in that matter was concurred in by a special engineering commission composed of Messrs. Eddy, Fuller, and Hatton."

On April 30, 1924 McCaleb wrote Activated Sludge, Ltd. at its London office (R. I, 711):

> "in behalf of the gentlemen whom Mr. Albert W. Dilling has interested in the matter of endeavoring to realize something from the infringement of the activated sludge patents in this vicinity. * * * They are Mr. Edgar C. Guthard, Mr. Franklin Mayo, and the writer, all of this city. * * * Mr. Guthard because of his excellent financial rating and other qualifications is the man whom we had planned to nominate as trustee. *Subject to your approval we would prefer not to have Mr. Dilling a party to the formal agreements with you. This is merely because we would expect to use Mr. Dilling as an expert witness. His value in that connection would be enhanced if his interest did not appear of record.*"*

In order to succeed in their venture, the syndicate was confronted with the dilemma of preparing documents which would legally protect their respective interests, thereby requiring the written recognition of Dilling's interest, and at the same time of preparing documents establishing their right to sue which would effectively conceal Dilling's interest and role in initiating the enterprise and this suit (R. I, 9-10, 14). The anxiety to conceal Dilling caused the co-adventurers to evolve the plan and scheme of having the exclusive license agreement run to Guthard as an individual and not as trustee despite the fact that the original agreement between the four co-adventurers provided that Guthard would hold all rights acquired by him as trustee (R. II, 10), and despite the fact that another *concealed* agreement made by Activated Sludge, Ltd. and three of the co-adven-

* Emphasis in quotations ours unless otherwise indicated.

turers *contemporaneously* with the license agreement acknowledged Guthard's trust capacity (R. II, 39). The license agreement was to serve as the muniment of title which would establish respondents' right to sue and yet conceal Dilling.

In order to protect their respective legal interests, the four joint adventurers (Dilling, Guthard, Mayo and McCaleb) created a Massachusetts Trust called "Activated Sludge Processes of America", to which they assigned all their right, title and interest, legal and equitable, in the so-called license agreement (R. II, 14, 15, 47). This means that the Massachusetts Trust, called Activated Sludge Processes of America, should have filed this suit. However, if that had been done, Dilling's relation to the suit would have been revealed by virtue of the fact that he was a one-fourth owner of the beneficial certificates issued by the Massachusetts Trust (R. II, 50). Consequently, all knowledge of the Massachusetts Trust and the assignment of the patents to it were carefully, conspiratorially and effectually suppressed and concealed from the petitioner and the court substantially throughout this litigation (R. II, 15).

Notice of infringement was served and this suit was filed by Activated Sludge Ltd. and Edgar C. Guthard without revealing Guthard's trust capacity. In preparation for the trial on the patent phase of this case, petitioner's counsel located several letters which had been sent to certain municipalities in the United States under the letterhead of "Activated Sludge Processes of America" with an address in Chicago. The letters were signed by Franklin Mayo, General Manager (R. II, 22, 64). In order to ascertain the identity of Activated Sludge Processes of America and its relation to the patents in suit, petitioner called as its witnesses the two persons who were fully conversant with the

situation, namely, the plaintiff Guthard and the General Manager, Franklin Mayo. Guthard's direct examination on this point reads as follows (R. III, 877):

"Q. Were you three gentlemen owners of that arrangement?
A. Yes, we were.
Q. Was that through some contract between you and Mr. McCaleb and Mr. Mayo?
A. As I recall, we only had a gentlemen's three party agreement.
Q. That was an oral agreement. What was the gist of that oral agreement?
A. We were equal owners, one-third owners.
Q. If I understand you, by this oral agreement you and Mr. Mayo and Mr. McCaleb became joint owners of a third each of the patents in suit?
A. That is right.
Q. By virtue of your rights and your arrangement with them?
A. That's right.
Q. At the time that you sold out to the Activated Sludge, Inc. did Mr. Mayo and Mr. McCaleb execute any agreement at the same time you made an arrangement?
A. I don't remember.
Q. But you do remember that you each had a third interest in those patents at that time?
A. Yes."

The manner in which Mayo was led by respondents' then counsel, who was a partner of McCaleb, one of the co-adventurers, to falsify the facts is made apparent by the following cross-examination (R. III, 873):

"XQ. This Activated Sludge Processes of America as the name appears on these letterheads on which you wrote these letters to which your attention has been called—was that a corporation?
A. No.
XQ. What was it?
A. **As I recall it was a trust.**"

Respondents' counsel evidently felt that that was a dangerous answer and might disclose that the trust was expressed in a written agreement which, respondents' counsel knew, would reveal respondents' conspiracy to conceal Dilling. Note how respondents' counsel by his leading questions caused Mayo to change his original answer (R. III, 873-4):

> "XQ. Well, was it the name under which Mr. Guthard operated?
> A. Yes.
> XQ. In one way or another?
> A. Yes.
> XQ. The details of which you do know or don't know now?
> A. Not in detail, no, I don't.
> XQ. Do you know anything more about it than what you have said?
> A. No.
> XQ. **Are you sure there was a trust?**
> A. **No.**"

On re-direct examination Mayo further testified (R. II, 23):

> "The trust I spoke of as being created was an understanding or something of that sort, where my interest was protected, because the contract was in the name of Guthard.
>
> I do not remember whether the trust was in writing.
>
> My proportion of the ownership of this license agreement was one-third. Mr. Guthard, Mr. McCaleb and myself each had one-third interest in this license agreement." (See question and answer form at R. III, 874).

Mayo further testified (R. III, 858, 9):

> "Q. Just what was your duty in connection with the—in connection with Mr. Guthard's relationship to these patents referred to in this license contract, Defendant's Exhibit 181?

A. I was appointed General Manager of the Association or parties, and my duties were to handle the correspondence.
Q. What do you mean by general manager of the association?
A. Well, I mean the parties to the agreement appointed me to take care of the correspondence.
Q. Which parties?
A. Guthard.
Q. Were there any other parties in this association that you have referred to?
A. Yes.
Q. Who were they?
A. A. G. McCaleb.
Q. Anyone else?
A. No."

In that way the petitioner and the Court were skillfully misled and deceived into believing that Activated Sludge Processes of America was merely a name for the business owned by Guthard, or Guthard, Mayo and McCaleb, and was organized under oral arrangement. When Dilling subsequently filed suit against his co-adventurers, and Guthard and Mayo were confronted with their testimony in this case, they were both forced to admit that it was false (R. II, 31-3).

In said Dilling suit, Mayo was asked before the Master (R. II, 31):

> "Q. And you stated under cross-examination of Mr. Williams at that trial *(Guthard et al* v. *The Sanitary District of Chicago)* that you were not sure it was a trust didn't you? A. I didn't know."

Counsel then confronted him with a sentence from the record in this case wherein the witness had stated (R. II, 31):

"I am not sure that there was a trust."

The witness was then asked (R. II, 31):

"Q. Were you asked this by Mr. Lane on redirect examination this question and did you give this answer: 'It is an understanding or something of the sort, as I recall, where my interest was protected, because the contract was in the name of Guthard.'

Were you asked that question and did you give that answer?"

The witness answered—

"I don't remember." Master's Rec. 2061-6.

"Q. Was that in writing? A. I don't recall.

Q. Were you asked that question or did you give that answer? A. I don't know.

Q. Well, if you did give—if you did answer that last question—that is you and Mr. McCaleb and Mr. Guthard had one-third each in that Trust. A. One-third each in this trust, yes, sir.

Q. If you made that answer it was a lie, wasn't it?"

Objection to the form of the question.

The witness answered—

"One-quarter was what I had, interest in that trust.

Q. And your answer would be that that answer, if you made it that way, **was not the truth. A. Yes.**"

The witness Guthard, while on the stand in the *Dilling* case, was asked by Dilling's attorney about his previous testimony in this case (R. II, 32):

"Q. And at that time and place did you say that the arrangement between yourself and McCaleb and Mayo was an oral one? A. Well, yes. I testified that it was an oral agreement, referring to the original agreement.

Q. Well, it wasn't an oral agreement was it? A. No, it wasn't.

Q. It was a written agreement. Well when you said it was an oral agreement you didn't tell the truth did you? A. I told the truth as I saw it at that time.

Q. Well your agreement with McCaleb and Mayo was in writing, wasn't it? A. Yes. Master's Rec. 2067.

Q. **And when you said it was an oral agreement that was not the truth was it? * * * A. Well, I would say it was not the truth.**

Q. **And when you said that you were one-third owner that was not the truth either, was it? A. No.** Master's Rec. 2068."

In the suit brought against Milwaukee by respondents, similar care was exercised by respondents' then counsel to conceal all evidence which might reveal the relationship of Dilling to these cases. In a brief filed in that case respondents' counsel made reference to an agreement not in the record between Activated Sludge, Inc. and Edgar C. Guthard which contained, according to respondents' counsel, the following provision (R. II, 363):

> "When and if the said 150 shares of Class C stock of second party (plaintiff) is issued and delivered to Edgar C. Guthard, trustee as hereinbefore provided, first party (Guthard) shall be deemed to have relinquished any and all rights and interest whatsoever which it has or might have in or under the agreements hereinbefore listed."

The document from which respondents' counsel purported to quote the foregoing paragraph was not in evidence and had never been seen by Milwaukee's counsel or the court. We now know, as the result of the discoveries in the *Dilling* case, that respondents' counsel were referring to the agreement dated January 27, 1927, which describes its parties as follows (R. II, 95):

> "Activated Sludge Processes of America (a trust estate created by a certain Trust Agreement dated the 25th day of July, 1924) herein called First Party, and Activated Sludge, Inc., a corporation organized and existing under the laws of the State of Delaware, herein called Second Party".

Further examination of said document reveals that respondents' then counsel inserted in their quotation from said agreement the word "(plaintiff)" after the words "second party" and the word "(Guthard)" after the words "first party". This was an inexcusable misrepresentation designed to conceal the relationship of "Activated Sludge Processes of America" to the title of the patents in suit. The first party to said agreement was not Guthard, it was Activated Sludge Processes of America. If it had been revealed that there was a document to which Activated Sludge Processes of America was a party, it might have rekindled the curiosity of petitioner's counsel in respect to Activated Sludge Processes of America, and had respondents been required to expose the document from which their quotation was taken, it would have revealed that Activated Sludge Processes of America was a trust created by a certain trust agreement dated July 25, 1924 and that agreement would have disclosed Dilling. In order to conceal the relationship of Dilling to respondents, their then counsel chose to misquote to the court a document not in the record in the Milwaukee case and not then in the record in the case at bar.

Petitioner would probably never have learned the truth about Dilling and his relation to this suit had not Dilling and his associates become involved in a dispute which resulted in Dilling's filing suit against his former associates (R. II, 23-31). From the disclosures made in said Dilling suit, petitioner learned for the first time that its former Chief Engineer was responsible for the acquisition of the patents in suit by respondents and the instigation of this litigation, that Dilling himself had a substantial interest in the patents and that Dilling claimed in his suit that he had been fraudulently deprived of such interest by the respondents herein, their attorneys and associates (R. II, 24, 25).

The fraudulent conspiracy concerning the concealment of Dilling, carried out by false pleadings, false testimony and false statements of respondents' then attorneys, is compounded by the sorry spectacle of manipulation in the Dilling case in 1939 whereby further attempts were made to forever conceal the above fraudulent practices. After petitioner learned that testimony had been taken in the suit brought by Dilling against his co-adventurers and that the Master had prepared a draft report to the effect that Dilling had a valuable interest in the patent rights, it filed a petition in the Dilling case asking that the records, testimony and exhibits be preserved and for an inspection thereof (R. II, 26). Said motion was continued with arrangement to permit petitioner's counsel to inspect said record (R. II, 27). Shortly thereafter, and without any notice to petitioner, the parties in the Dilling case secured a remarkable order directing:

> "that the draft report of the Master herein be, and it hereby is suppressed as incomplete, and all copies are ordered to be returned instanter to Charles A. McDonald, Master in Chancery, to be by him destroyed" (R. II, 33)

and—

> "The Master is directed to return to the respective parties the several exhibits and documents submitted in evidence before the Master, and the respective manuscripts of testimony, briefs, objections, exceptions and suggestions" (R. II, 33).

On the following day, July 1, 1939, and without notice to petitioner, the Dilling case was dismissed by consent, notwithstanding that petitioner's petition for examination and preservation of the record was still pending. By this perfidious conduct of respondents in prostituting the processes of the court to destroy court records, petitioner suffered great difficulty and delay in securing evidence of the fraud-

ulent conduct herein presented and was in fact denied an opportunity to secure all of it. We now learn that Dilling was to receive at least $100,000 of the anticipated recovery (R. I, 20).

By reason of respondents' objections petitioner has been denied the ordinary right to pre-trial depositions under Rule 26 of the Rules of Civil Procedure so that full inquiry into the fraudulent suppression of evidence has been frustrated by the court below (R. I, 33-35).

In spite of these facts, all of which stand admitted on this record, the courts below have decided that respondents are entitled under the law to recover, notwithstanding the unconscionable conduct of respondents in suppressing and concealing evidence from petitioner and the court. Aside from a question of title not urged here, the first opinion of the District Court concerned itself only with the following question, as stated by the District Court (R. III, 885):

> "that the suit should be dismissed for the reason that it was inspired, filed and prosecuted through the action of one Dilling, formerly chief engineer of defendant, who, it is alleged, learned the facts concerning the vulnerability of defendant to patent litigation under the patents here involved while employed by defendant."

The District Court did not refer to or distinguish the case of *Trice* v. *Comstock,* 121 Fed. 620 (C. C. A. 8), a leading authority holding that the duty of an employee to be true and faithful to his employer "is as sacred and inviolable after as before the expiration" of his employment (p. 625), so that an employee cannot after his employment ceases, as Dilling did here, take advantage of the information acquired by him during his employment to prevent his former employer from accomplishing certain of the purposes of their relationship.

The District Court concluded (R. III, 899):

> "* * * that the new evidence is not competent, relevant or material, and that if it were produced and received it would in no wise justify a reopening of the decree."

Recognizing that the District Court had misconceived the law in believing that the suppressed evidence must in itself constitute a good defense to the action, petitioner urged before the Court of Appeals the reasoning of the Supreme Court and that of the Sixth Circuit Court of Appeals in

> *Keystone Driller Co.* v. *General Excavator Co.*, 290 U. S. 240,

that no relief would be given to one who tried to suppress evidence which caused it anxiety as to the soundness of his case even though such evidence was immaterial. This is made clear in the opinion of the Sixth Circuit Court of Appeals (62 F. (2d) 48, 50):

> "The next insistence of the plaintiff is that the alleged misconduct should not be held to constitute a bar since it related to an immaterial matter; the Joplin use being in truth and in fact but an abandoned experiment. * * * This seems to us to be immaterial. We are not here and now concerned with a question of anticipation, but of conduct, and certain it is that there was enough in the information communicated to Downie to cause uncertainty and anxiety to him and to the plaintiff, and to bring about the action finally taken. If the conduct was reprehensible, it matters not that it was really unnecessary."

The court below affirmed the District Court with a short opinion which contained the statement that the District Court had heard "voluminous evidence" when in fact no trial had taken place (R. III, 920). Petition for certiorari to this Court was denied (313 U. S. 583) but it may be

assumed that such denial was based on the lack of a final order (*Hamilton-Brown Shoe Co.* v. *Wolf Bros. & Co.*, 240 U. S. 251, 258).

Prior to the accounting trial and on the basis of the recent case of *Hazel-Atlas Glass Co.* v. *Hartford-Empire Co.*, 322 U. S. 238, in which this Court devitalized a judgment entered twelve years earlier, and of *Precision Instrument Mfg. Co.* v. *Automotive Maintenance Mach Co.*, 324 U. S. 806, in which this Court reversed the Seventh Circuit Court of Appeals in a similar case, petitioner filed its petition on June 18, 1945, only to have paragraph 4 thereof stricken by order of the District Court (R. I, 9-35), and petitioner was enjoined from offering any evidence on that subject (R. I, 35). In its unreported opinion the District Court attempted to distinguish the cases of this Court cited above on the ground that in those cases the suppression of evidence went to the validity of the patents themselves and not to the conduct of the plaintiff before the court (*ante*, p. 4).

It has been said that this Court usually does not grant certiorari to reiterate well-established principles of law despite the fact that the decision below clearly departed from those principles, and it may be argued that the decisions of this Court cited above are sufficiently clear that this Court will not tolerate fraud or suppression of evidence when practiced in the federal courts. However, there is a more compelling reason for this Court's assuming jurisdiction even though there were presented no question regarding the desirability of clarifying and settling the principles of law involved. This compelling reason must have been the motivation which led this Court to accept jurisdiction in the *Hazel-Atlas* and *Precision Instrument* cases albeit the questions involved in those cases were not substantially dif-

ferent from those settled in the *Keystone Driller* case. This Court granted certiorari in those cases, as it should here, because it is alert to strike down and condemn any conduct on the part of litigants or their counsel which is likely to bring the judicial system of the United States into disrepute and dishonor. This Court cannot close its eyes to the kind of reprehensible conduct charged in the petitions presented by petitioner in the court below.

This Court, constituting as it does the head of one of the three great coordinate branches of our government, has always been highly sensitive to the necessity of maintaining at all times the dignity, integrity and respect of the Courts and has always stricken down and will continue, as we believe, to strike down, any unconscionable and inequitable conduct which might affect the standing of and the high respect which at all times should be accorded the judicial branch of our government.

The select phrasing of Justice Cardozo in

> *Meinhard* v. *Salmon,* 249 N. Y. 458, 164 N. E. 545, 546,

while directly applicable to Dilling's breach of his fiduciary relationship to petitioner, pertains with like force to the standards of conduct which must prevail in the institution and carrying on of litigation:

> "Many forms of conduct permissible in a workaday world for those acting at arm's length, are forbidden to those bound by fiduciary ties. A trustee is held to something stricter than the morals of the market place. Not honesty alone, but the punctilio of an honor the most sensitive, is then the standard of behavior. As to this there has developed a tradition that is unbending and inveterate. Uncompromising rigidity has been the attitude of courts of equity when petitioned to undermine the rule of undivided loyalty by the 'disintegrating erosion' of particular exceptions. *Wendt*

> v. *Fischer,* 243 N. Y. 439, 444, 154 N. E. 303. Only thus has the level of conduct for fiduciaries been kept at a level higher than that trodden by the crowd. It will not consciously be lowered by any judgment of this court."

II.

THE FINAL JUDGMENT ON THE ACCOUNTING SHOULD BE REVERSED BECAUSE IT IS PREDICATED ON LEGAL PRINCIPLES WHICH ARE IN CONFLICT WITH THE DECISIONS OF THE SUPREME COURT AND OTHER CIRCUITS.

A. The "extra damages" awarded by the court below is without precedent and has no basis in principle.

Included in the judgment for $950,000 is an unstated amount for "extra damages" (R. I, 68-70). The phrase "extra damages" is not found in the law dictionaries of Bouvier or Black or in "Words and Phrases" and is apparently a figment of the District Court's creation. It introduces a novel concept into the law of damages in patent infringement cases and has, we submit, no precedent in the authorities and no reason in principle. Before other courts follow the precedent found in the opinion below and a body of law be developed around a fallacious ruling, this Court should let it be known whether or not it sanctions this innovation in the law.

There is no reason for the award of any damages in this case other than a reasonable royalty. Conclusion of Law 2 of the court below is that "plaintiffs are entitled to recover on the theory of general damages by way of reasonable royalty" (R. I, 51). This is supported by the stipulation between the parties that respondents "suffered no damages because of lost sales" and do not "seek to recover any monetary sum or sums as profits" (R. I, 507).

One of the best definitions of reasonable royalty is found in the opinion written by Judge Denison in

Egry Register Co. v. *Standard Register Co.*, 23 Fed. (2d) 438 (C.C.A. 6, 1928),

as follows (p. 443):

> "To adopt a reasonable royalty as the measure of damages is to adopt and interpret, as well as may be, the fiction that a license was to be granted at the time of beginning the infringement, and then to determine what the license price should have been. In effect, the court assumes the existence ab initio of, and declares the equitable terms of, a supposititious license, and does this nunc pro tunc; it creates and applies retrospectively a compulsory license. * * *
>
> In fixing a reasonable royalty, the primary inquiry, often complicated by secondary ones, is what the parties would have agreed upon, if both were reasonably trying to reach an agreement."

The problem before the court below was to determine the amount of the license fee or royalty under the "supposititious license" which was to be retroactively constructed. Once the amount of the reasonable royalty was determined, the only question remaining was whether or not exemplary or punitive damages should be added under the statute which gives the court discretionary power to do so.* The court below considered and resolved that question by deciding that exemplary damages may not be awarded against a municipal corporation and expressly stated (R. I, 70):

> "I have carefully avoided any allowance in the nature of exemplary damages . . ."

The "extra damages" must therefore be something in addition to the reasonable royalty but short of increased damages under the statute. This would require the "extra

* 35 U. S. C. A., Sec. 70.

damages" to occupy an area between reasonable royalty or general damages and exemplary or punitive damages which, until the decision below, no one knew existed.

The true nature of the "extra damages" becomes apparent when study is made of the two elements considered by the court below in determining the amount of the "extra damages." The first element is stated as follows (R. I, 70):

> "• • damages purely compensatory which are elusive but which plaintiffs ought to recover, not as punishment but as reimbursement for what plaintiffs have actually lost."

The other element is stated as follows (R. I, 70):

> "In this connection I have not given weight to the amount of fees of counsel but have considered *the fact* that the plaintiffs have been compelled to sustain long and expensive litigation."

The reason motivating the court below to award the "extra damages" is apparently revealed in Findings of Fact 46-48 and, in particular, Finding of Fact 48 which states (R. I, 50):

> "Defendant was a persistent and deliberate infringer and this is another factor which may be taken into consideration in assessing general damages in this suit."

We submit that the persistent and deliberate nature of the infringement might, in a proper case, entitle the court to award exemplary damages, but inasmuch as exemplary damages cannot be awarded in this case, there was no basis whatsoever for the award of so-called "extra damages" over and above the amount of the reasonable royalty. As explained in our petition (*ante,* 10-11) there was no basis for the finding that petitioner was guilty of persistent and deliberate infringement.

The elements considered by the trial court in allowing "extra damages" are those which are usually considered

in allowing increased damages under the statute by way of exemplary or punitive damages and cannot be allowed by way of primary or general damages (*Aladdin Mfg. Co.* v. *Mantle Lamp Co.*, 116 F. (2d) 708, 716-717 (C.C.A. 7)). The "elusive" damages which the court below held that "plaintiffs ought to recover" for what they "actually lost" are not defined by the court below. However, the repeated reference by the court below to the age of the case and the fact that it made calculations on the basis of compound interest at 5% per annum "to make plaintiffs whole now on what they would have received then" make it fairly clear that the court below included in the "extra damages" some amount for interest from the date when the suppositious licenses would have been made (R. I, 64-65). Obviously, the fact that the accounting trial in this case did not take place until many years after the suit was filed does not operate to enhance the rights of respondents. The law is well established that interest is not allowable on reasonable royalty until its amount is liquidated by a master's report or judgment. Although there was considerable conflict of authorities on this point before the decision of this Court in *Duplate Corp.* v. *Triplex Safety Glass Co.*, 298 U. S. 448, the rule was settled in that case, the language of Justice Cardozo on this point being as follows (p. 459):

> "If, however, an award of damages upon the basis of a reasonable royalty becomes appropriate again, we think that interest should run from the date when the damages are liquidated, and not, as by the present decree, from the date of the last infringement. *Crosby Steam Gage & Valve Co.* v. *Consolidated Safety Valve Co.*, supra (141 U. S. at pp. 457, 458 * * *; *Tilghman* v. *Proctor*, 125 U. S. 136, 160, 161, * * *; *Mowry* v. *Whitney*, 14 Wall. 620, 653, * * *. There are no exceptional circumstances justifying a departure from what is at least the general rule."

The second element considered by the court below is no less elusive than the first, relating as it does to "the fact"

that plaintiffs have sustained long and expensive litigation and disavowing any intention of allowing counsels' fees as such. The distinction between the amount of fees of counsel, to which the court below states that it gives no weight, and the fact that plaintiffs sustained long and expensive litigation, to which consideration is given by the court below, is so tenuous as to be nonexistent. The inference is inescapable that in allowing "extra damages" the court below considered the cost of litigation, an element which cannot be properly considered in the estimation of damages in patent infringement cases save by way of exemplary or punitive damages. It was early stated in

Teese v. *Huntingdon*, 23 How. 2 (1860),

where the Supreme Court approved the exclusion of evidence relating to attorney's fees in a patent infringement case, that (pp. 8-9):

> "Counsel fees are not a proper element for the consideration of the jury in the estimation of damages in actions for the infringement of a patent right. The point has been directly ruled by this court, and is no longer an open question. Jurors are required to find the actual damages incurred by the plaintiff at the time his suit was brought; and if, in the opinion of the court, the defendant has not acted in good faith, or has caused unnecessary expense and injury to the plaintiff, the court may render judgment for a larger sum, not exceeding three times the amount of the verdict."

To the same effect see:

Oelrichs v. *Spain*, 15 Wall. 211 (1872)
Day v. *Woodworth*, 13 How. 363 (1851)
Missouri Pacific R.R. Co. v. *Larabee*, 234 U.S. 459 (1914)

Inasmuch as the "extra damages" awarded by the court below cannot, by virtue of the court's own holding, be treated as exemplary or punitive damages, they must constitute part of the general damages. However, the general

damages cannot, under the decisions of this Court referred to above, include such elements as lost interest or litigation expense.

Whatever other elusive items may be included in the concept of "extra damages" defies the imagination, especially in view of the Conclusions of Law of the court below that the general damages in this case consist of a reasonable royalty (R. I, 51). The factors to be considered in determining the amount of the reasonable royalty are correctly expressed by the court below and do not include any of the elusive elements considered by the court in awarding "extra damages" (R. I, 51)

The rules of damages in patent infringement cases have become well delineated during the past century and a half and no utility obtains in the idea of "extra damages" invented by the court below. A creature of such nebulous nature as this concept of "extra damages" can cause nothing but confusion. It is apparent that the concept of "extra damages" was used by the court below to do indirectly what it had decided could not be done directly, that is, it allowed increased damages for an infringement which it considered to be persistent and deliberate and called them compensatory damages, whereas they were in reality exemplary or punitive damages which could not have been allowed as such. The exercise by this Court of its supervisory jurisdiction is required to abort this illegitimate concept.

B. The Findings of Fact of the court below violate the Rules of Civil Procedure and do not follow the decisions of this Court.

Nowhere in the Findings of Fact, Conclusions of Law and Opinion of the District Court, adopted without opinion by the Court of Appeals, is there any explanation or suggestion as to how much of the judgment constitutes the

reasonable royalty and how much the "extra damages." Nowhere can be found any statement as to how the figure of $950,000 was computed. The figure of $950,000 does not appear anywhere in the evidence and cannot be found in the Findings of Fact or Opinion of the District Court except in the arbitrary award. The figure closest to $950,000 found in the opinion of the District Court is $985,817, said to be 3% of the cost of constructing the infringing plants (R. I, 65).*

An accounting trial should result in an arithmetical statement which sets forth the figures entering into the final award. The proper procedure is followed in

Power Specialty Co. v. *Connecticut Light & Power Co.*, 80 F. (2d) 874 (C.C.A. 2),

in which the opinion concluded as follows (p. 879):

"The appellee is entitled to a decree for damages as follows:

(1) Appellant's profits on installation 1—Franklin Sugar Co.—as approved by the court below	$16,565.43
(2) For the loss of one installation, Western United as found below	5,415.18
(3) 15% royalty on the appellant's selling price of the remaining installations	29,707.52
(4) Plaintiff's loss due to reduced price in New York Steam installation of	5,881.79
Making a total of	$57,569.92"

In

Kelley v. *Everglades Drainage District*, 319 U.S. 415 (1943),

* This figure is 3% of $32,860,569.46 which is the total construction cost of not only the three plants involved but also the Calumet Extension Plant (R. I, 531) which by the court's Conclusion of Law 6 (R. I, 52) is not to be included in the recovery. The cost of the Calumet Extension is $6,409,260.37 (R. I, 531) and 3% thereof is $192,277.81, a sizeable error.

the Supreme Court reviewed a decree confirming a plan for composition of debts of a drainage district and held that the findings of fact were inadequate in failing to specify past and present revenue and the assessed value of the property subject to tax so that the fairness of treatment of the different classes of creditors could be determined. In vacating the decree and remanding the case, the Supreme Court said (pp. 420, 421):

> "To support such determinations, there must be findings, in such detail and exactness as the nature of the case permits, of subsidiary facts on which the ultimate conclusion of fairness can rationally be predicated.
>
> • • • • •
>
> It may be that adequate evidence as to these matters is in the present record. On that we do not pass, for it is not the function of this court to search the record and analyze the evidence in order to supply findings which the trial court failed to make. Nor do we intimate that findings must be made on all of the enumerated matters or need be made on no others; the nature of the evidentiary findings sufficient and appropriate to support the court's decision as to fairness or unfairness is for the trial court to determine in the first instance in the light of the circumstances of the particular case. We hold only that there must be findings, stated either in the court's opinion or separately, which are sufficient to indicate the factual basis for the ultimate conclusion."

There are no findings of fact which will enable a reviewing court to determine the soundness of the ultimate finding that the general damages amount to $950,000.

When the District Court considered the monetary savings which respondents alleged were realized by petitioner in constructing and operating the infringing plants, the court did not find that savings in any amount were realized but preceded its findings with the phrase "Plaintiffs' evi-

dence also indicates" or "Plaintiffs' evidence indicates" (Findings of Fact 30 and 33; R. I, 46-47). After reviewing some of respondents' evidence in Finding of Fact 30 the District Court states the alleged amount of yearly savings "from this viewpoint" (R. I, 46), apparently referring to the viewpoint of respondents' evidence rather than that of the court. Such so-called findings are not findings at all but simply a review of the evidence of one of the parties. In

> *Brown Paper Mill Co.* v. *Irvin,* 134 F. (2d) 337 (C.C.A. 8, 1943),

Judge Sanborn stated the rule as follows (p. 338):

> "Findings of fact should be 'a clear and concise statement of the ultimate facts, and not a statement, report, or recapitulation of evidence from which such facts may be found or inferred.'"

This should make it evident that the judgment should be reversed, if not for any other reason, on account of the failure of the court below to make findings in compliance with the Rules and the decisions of this Court.

C. The judgment for $950,000 is not based on any tangible evidence which is necessary to convert into dollars such elements as the character of the inventions, their advantages and disadvantages, extent of use and popularity.

Respondents based their case upon the alleged broad and pioneer character of the patents in suit and the large installations constructed by petitioner alleged to utilize the inventions described in such patents. No attempt was made to translate such intangible factors into dollars. To prove that the patents in suit are broad, of pioneer character, outstanding and meritorious does not accomplish the objective at hand, namely, to place a dollar value upon a supposititious license under certain patents to the petitioner for the infringing plants and for the period of infringement.

The applicable rule is stated in

American Tel. & Tel. Co. v. *Radio Audion Co.*, 5 F. (2d) 535 (D. C. Del.),

as follows (p. 536):

> "It is, of course, obvious that even in cases in which the only proper standard for the measurement of the damages is that of reasonable royalty, there may be lacking sufficient evidence to disclose what a reasonable royalty would be. The Dowagiac and Frumentum Cases, upon their presentation to the Supreme Court and the Court of Appeals, respectively, were instances of this type.
>
> * * * since there was no established royalty, and since the plaintiff has not lost any sales or suffered any lessened profits by reason of the infringement, the only standard of measurement of damages at all available to the plaintiff is that of reasonable royalty. But that *standard is also unavailable* to the plaintiff *unless the evidence* in the record *is sufficient* in character and amount *to disclose what sum would constitute a reasonable royalty* upon a tube embodying the inventions of the patents in suit."

The court in that case did not determine the reasonable royalty upon uncertain evidence relating in a general way to the character of the inventions, their advantages, utility, etc. The court sought and found in the record something tangible in the shape of three licenses which plaintiff had made shortly prior to the infringements involved. One license was at $1.00 per tube and the others at 80 cents per tube. The court fixed the reasonable royalty at 80 cents per tube and said (p. 537):

> "I think these three contracts pertinent evidence upon the question of the amount of a reasonable royalty."

The correct rule was early stated in

Philp v. *Nock*, 84 U.S. 460,

as follows (p. 462):

> "Where the plaintiff has sought his profit in the form of a royalty paid by his licensees, and there are no peculiar circumstances in the case, the amount to be recovered will be regulated by that standard. If that test cannot be applied, he will be entitled to an amount which will compensate him for the injury to which he has been subjected by the piracy. In arriving at their conclusion, the profit made by the defendant and that lost by the plaintiff are among the elements which the jury may consider.
>
> * * * * *
>
> The plaintiff must show his damages by evidence. They must not be left to conjecture by the jury. They must be proved, and not guessed at."

The practice of the courts below is at variance with that of the Sixth Circuit Court of Appeals as expressed in

> *Horvath* v. *McCord Radiator & Mfg. Co.*, 100 F. (2d) 326 (C.C.A. 6),

in which the court said (p. 336):

> "In every case, the court should sift the evidence and place its determination of reasonable royalties on something tangible if it can be found in the record in order to avoid an arbitrary conclusion."

The rule followed by the Second Circuit Court of Appeals is tersely stated by Judge Learned Hand in

> *Cincinnati Car Co.* v. *New York Rapid Transit Co.* 66 F. (2d) 592 (C.C.A. 2, 1933),

(p. 595):

> "* * * we must find some basis in the evidence; we cannot conjure figures from our own minds."

The action of the courts below is analogous to that taken by the master and trial court in the leading case of

> *Rude* v. *Westcott*, 130 U. S. 152,

which was described by this Court as follows (p. 166):

> "The master does not appear to have given weight to the judgment of any of the witnesses, but concluded, though by what process of reasoning is not perceived, that seventy-five cents on each one-horse drill and double that sum on each two-horse drill would be the proper amount to allow; and as he had found, though upon testimony equally loose and insufficient, that there were one thousand one-horse drills and an equal number of two-horse drills, he reported that the complainants were entitled to $2,250 as damages. The court was not satisfied with his conclusion, and, without stating the ground of its action, ordered the amount to be reduced to $1,800 as damages which the plaintiff should recover • • •."

The poverty of respondents' evidence was such that the petitioner's motion to dismiss the action at the close of respondents' case should have been granted or only nominal damages awarded (R. I, 236). A parallel case is

Black v. *Thorne,* 111 U. S. 122,

in which the reasoning of Justice Field is especially applicable to this case (p. 124):

> "It does not always follow that because a party may have made an improvement in a machine and obtained a patent for it, another using the improvement and infringing upon the patentee's rights will be mulcted in more than nominal damages for the infringement. If other methods in common use produce the same results, with equal facility and cost, the use of the patented invention cannot add to the gains of the infringer, or impair the just rewards of the inventor. The inventor may indeed prohibit the use, or exact a license fee for it, and if such license fee has been generally paid, its amount may be taken as the criterion of damage to him when his rights are infringed. In the absence of such criterion, the damages must necessarily be nominal."

Inasmuch as there was no competent evidence introduced by respondents to convert into dollars the intangible qualities of the patents in suit, it is evident that the court below arrived at the figure of $950,000 by following methods which have been condemned by this Court and Courts of Appeals of other Circuits. The error in law of the court below is rendered all the more palpable by reason of the fact that petitioner introduced specific evidence by which the reasonable royalty could be determined. The undisputed evidence introduced by petitioner shows that Activated Sludge, Ltd., the patentee and one of the original plaintiffs in this case, established a standard royalty charge for the patents in suit together with five other related patents and that offers were made to license American municipalities under such patents at the royalty rates stipulated in said standard royalty charge (R. I, 258, 704-6, 715-6, 726, 789). The evidence further shows that the exclusive licensee in the United States under the patents in suit made offers to many American municipalities to license them under said patents at license fees which coincided with the same schedule of royalty charges (R. I, 722-6, 742-5, 783-793, 799-806). These offers made in the course of normal business dealings and for the purpose of entering into license agreements, all made at or shortly prior to the commencement of the infringements involved herein, are graphically shown on Defendant's Exhibit A-116 (copy of which is attached hereto as Appendix "A").

On the basis of such uncontradicted evidence proving the monetary evaluation of licenses under the patents in suit and other related patents by the respondents themselves, the reasonable royalty allowable in this case cannot exceed $90,000. Respondents themselves in their settlement with Cleveland placed a value of 43.4% of the entire amount upon Patent No. 1341561—a patent held invalid in

this case. The $90,000.00 should therefore be reduced by 43.4% (R. I, 622, 780). The value placed upon the licenses under the patents in suit by the respondents themselves was corroborated by the opinion testimony of exceptionally qualified witnesses that the reasonable royalty should be approximately $50,000 (R. I, 432-4, 482-3). Respondents offered no opinion testimony.

This evidence was supplemented by other evidence introduced by petitioner, principally through contemporaneous documents emanating from impartial authorities, which analyze the character of the inventions, their advantages and disadvantages, their popularity, reputation, demand and extent of use, as they were understood to be at the time and immediately preceding the infringements involved herein (R. I, 802, 807, 810, 818). Such evidence proved that the activated sludge process was not superior, but in many respects inferior to the comparable Imhoff tank and trickling filter method, which was available as an alternative method of sewage treatment and under which petitioner could have obtained a license for approximately $14,000 (R. I, 809).

In ignoring specific evidence introduced by petitioner and in taking a figure which could have been based only upon conjecture and guesswork, the courts below have departed so far from the judicial processes required in determining the damages that this Court's intervention is necessary. Although superficially the Findings of Fact and Opinion of the District Court bear the aspect of thorough and impartial consideration of all the evidence, the judgment for $950,000 is not supported by any competent evidence in the Record.

III.

THE COURT BELOW ERRONEOUSLY HELD THE PATENTS IN SUIT VALID BY ADOPTING PRINCIPLES OF LAW WHICH ARE AT VARIANCE WITH THE DECISIONS OF THE SUPREME COURT.

In addition to the other reasons for the exercise by this Court of its supervisory jurisdiction, it can be readily shown that the patents themselves are invalid. This can be done without reviewing or weighing the evidence but simply by perusing the opinions of the court below. Those opinions make it clear that, even assuming that the court below made proper findings of fact, the patents were held valid by the application of principles of law which are at variance with the decisions of this Court, including certain decisions rendered after the entry of the interlocutory decree was affirmed by the court below.

The patents in suit have not been considered anywhere except in the Seventh Circuit. There are no other cases pending anywhere involving the patents in suit and all the patents expired many years ago. This is the only case involving the patents in suit in which a final judgment was entered by any Court of Appeals. There consequently exist in this case the same grounds for granting certiorari as existed in other cases in which this Court granted certiorari because of the improbability of there ever arising a conflict of decision between the circuits.[1]

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[1] *Muncie Gear Works* v. *Outboard, Marine & Mfg. Co.*, 315 U. S. 759, 765, 766, "* * * we granted certiorari in view of the questions presented and because the patent dominates a substantial portion of an industry so concentrated in the Seventh Circuit that litigation in other circuits, resulting in a conflict of decisions, is unlikely."

Schriber-Schroth Co. v. *Cleveland Trust Co.*, 305 U. S. 47 (Certiorari granted because concentration of the automobile industry in the Sixth Circuit made litigation elsewhere improbable).

Mackay Radio & Telegraph Co. v. *Radio Corp. of America*, 306 U. S. 86, 89 (Certiorari granted because further litigation was improbable in view of the fact that petitioner was the only competitor of respondent in the business of world wide public radio communications).

A. The four process patents in suit were held valid by the Court below on the erroneous principle that reduction to laboratory practice by scientists was not sufficient to show prior use and that translation of the scientific discovery into commercial success constituted invention upon which to base the granting of a patent.

The process patents relate to the so-called activated sludge method of sewage treatment which is concisely described in Claim 3 of 1,286,017 as follows (R. XI, 5156):

> "... (1) treating sewage with air,
> (2) separating the activated sludge from the liquid, and
> (3) adding such activated sludge to the first mentioned air-treatment in the treatment of raw sewage, the activated sludge being mixed with the raw sewage during and by such air treatment."*

It has been long known that sewage may be purified by aeration but the long period of time required made aeration alone an impractical method for the treatment of large quantities of sewage (69 F. (2d) 577, 579-580; R. VIII, 2917). The essence of the invention, if there be any, as described in the three-step process quoted above, is found in the idea that the flocculent aerobic matter (called activated sludge) which settles at the bottom of a tank after sewage has been thoroughly aerated in the presence of sludge accumulated from previous aerations, acquires the property, when introduced into raw sewage, of accelerating the oxidation process so that large quantities of sewage may be rendered relatively innocuous within a reasonably brief period. The question is whether that biochemical process was discovered by Walter Jones, the alleged inventor under all the patents in suit, or certain chemists employed by the City of Manchester, England, who pub-

* Numerals added.

lished their work prior to any knowledge that can be imputed to Jones.

Although the case of

Corona Cord Tire Co. v. *Dovan Chemical Corp.*, 276 U. S. 358,

was cited to the court below as a decisive authority, it is not mentioned in any of the opinions below and its principles are not followed. In that case, one Kratz, a rubber chemist, discovered the superiority of a chemical accelerator known as D.P.G. in the vulcanization of rubber and demonstrated its utility by reducing it to practice in his laboratory on a small scale. However, it was not followed by commercial success because of the then high cost of D.P.G. This Court held that reduction to use need not be a commercial use and invalidated the patent in suit on the basis of Kratz' prior use. In the language of Chief Justice Taft (p. 384):

> "It is a mistake to assume that reduction to use must necessarily be a commercial use. If Kratz discovered, and completed as we are convinced that he did, the first use of D.P.G. as an accelerator in making vulcanized rubber, he does not lose his right to use this discovery when he chooses to do so for scientific purposes or purposes of publication or because he does not subsequently sell the rubber thus vulcanized or use his discovery in trade or does not apply for a patent for it. It is not an abandoned experiment because he confines his use of the rubber thus produced to his laboratory or to his lecture room."

The controlling opinion of the court below is not its opinion in this case but the one rendered earlier in the suit against Milwaukee. In its opinion in this case on the validity of the patents, the court below concluded "that the substance of all the evidence bearing upon the important questions of validity was precisely the same in

this suit as in the Milwaukee litigation" (90 F. (2d) 727, 728). We must therefore look to the opinion in the Milwaukee case for the reasoning which impelled the court below to hold the patents valid (69 F. (2d) 577). In that opinion the court below acknowledges that it had long been known that sewage could be purified by oxidation (69 F. (2d) 577, 579-580), and refers to the experimental work done in England by Dr. Fowler, Mumford, Ardern and Lockett prior to the interest of Jones in their work. The court below admits (69 F. (2d) 577, 587):

> "That Fowler and his assistants at Davyhulme discovered the bio-chemical process there can be no question, * * *"

and further finds (p. 585):

> "On April 3, the first Ardern and Lockett paper was read and its disclosures were admittedly revolutionary in their biochemical aspects."

That the Ardern and Lockett paper covers everything later claimed by Jones as his invention is made clear by the following conclusions from that paper (R. VIII, 2952):

> "The foregoing investigations have established:
>
> 1. That the resultant solid matter obtained by prolonged aeration of sewage, which has been termed activated sludge, has the property of enormously increasing the purification effected by simple aeration of sewage, or in other words it greatly intensifies the oxidation process.
>
> 2. The extent of the accelerating effect depends upon the intimate manner in which the activated sludge is brought into contact with, and upon its proportion to, the sewage treated.
>
> 3. That in order to maintain the sludge at its highest efficiency it is necessary that there should not be at any time an accumulation of unoxidized sewage solids."

The findings of the court below on this point are amply supported by the Record. Jones himself repeatedly stated that he was not the inventor of the new process. When Jones was interviewed by the Rivers Committee of the City of Manchester in February, 1915, he said (R. V, 751):

> "The effect of the first paper read on this subject, April, 1914, by Messrs. Ardern & Lockett . . . was to render the process public property. It was then open for anyone to design, invent, or patent appliances calculated to perform the mechanical side of the question."

Coombs, an employee of Jones from 1913 to 1919, testified that he heard the Ardern and Lockett paper of April 3, 1914 and

> "we [Jones and Coombs] never knew anything about experiments until the papers were read, but we knew nothing—I can say that—about what was actually being experimented with or what they had in mind for the future until the paper was actually read" (R. VI, 1409-10).

In explaining to the Rivers Committee why the patents were applied for by himself rather than by Ardern, Lockett or Dr. Fowler, all employees of the Rivers Committee, Jones stated that Dr. Fowler, "being engaged on the scientific side, did not think it would be prudent for him to apply for patents" and "I then offered, on behalf of my firm, to take out patents" (R. V, 751).

In a pamphlet issued by Jones and Attwood in May, 1915, it is made clear that they made no claim to the discovery of the process but only to the apparatus designed to practice the process (R. VIII, 3067-8):

> "This process, which for convenience is termed the 'Activated Sludge' process, has been evolved, after careful and prolonged Scientific research, by Dr. Fowler and his colleagues, Mr. Edward Ardern and

Mr. W. T. Lockett at the Corporation Sewage Works, Davyhulme, Manchester, and Captain Mumford, at the Manchester University. These gentlemen are the pioneers of the 'Activated Sludge' process described in this booklet.

Our association with them is due to our having been continuously consulted by Dr. Fowler, since September, 1913, as to the best means of aerating the experimental tanks at Davyhulme.

* * * * *

The description of the methods of working, and the probable lines of development were furnished to us by Dr. Fowler and his staff; we have made it our aim to design special tanks of various forms, and sundry mechanical appliances calculated to meet their requirements with economy and efficiency; and have with their approval protected by patents the diffusers, tanks, etc. with the object of securing for the pioneers some control over the development of the process, and thus ensure the success of every installation.

* * * * *

It will readily be recognized that the process is essentially a problem for the Bio-chemist, and its application one for the Engineer. Hence, qualified experts should be responsible for all installations."

In a trade publication, "The Surveyor and Municipal and County Engineer" of December 7, 1915, Jones said (R. VI, 1355.6):

> "The process is the invention of Dr. Fowler and his colleagues; the apparatus adopted in the experiments both in this country and America are of our design".

In an affidavit made January 10, 1917, Jones said (R. IX, 3727):

> "* * * it is a matter of public record in the technical press and elsewhere that Dr. Fowler was the discoverer of the Activated Sludge Process. Dr. Fowler did not introduce it from America, but was the discoverer of it, and whilst Messrs. Ardern & Lockett carried out experiments with the process it was under Dr. Fowler's

> guidance and directions that this was done * * *. * * * I had never heard any person state publicly or otherwise anything but that Dr. Fowler was the sole author of this process."

In May, 1923, Jones wrote to the Plumbing Trade Journal (R. IV, 471):

> "The latest and best system for the treatment of sewage is 'The Activated Sludge' System, the principle of which is 'Aeration' by compressed air, discovered by Dr. Fowler and Dr. Ardern, Manchester, developed by Jones & Attwood * * *."

What is the biochemical process that the court below and Jones admit was discovered by Dr. Fowler and his assistants and was revolutionary in nature? Certainly it was not the well-known principle that the introduction of air into sewage will result in purification. It could only have been the discovery that the introduction into raw sewage of activated sludge accumulated from previous aerations and containing aerobic bacteria will accelerate the process of purification. There is nothing more in the process patents in suit.

However, because Dr. Fowler and his assistants did not reduce the process to successful commercial use, the court below refused to attribute priority to their discovery. The reasoning of the court below is made clear by the following excerpts from its opinion (69 Fed. (2d) 584-5):

> "The disclosures [of the Ardern and Lockett paper] were bio-chemical in their nature and there was no suggestion as to how they could be translated to a practical working basis."
>
> "* * * as late as July 27, 1914, the desired method of translating the bio-chemical process had not been determined by Fowler, Ardern, Lockett or Mumford."
>
> "[Jones associated himself with the scientists who were] able to help him translate their theories into practical processes."

The court below attempted to explain Dr. Fowler's testimony that Jones was not the inventor of the process by stating that (p. 586):

> "* * * he was speaking of the bio-chemical process involved in the patents and not the method or commercial process by which the bio-chemical process was induced to perform its perfect work. This conclusion we think is supported by the following statement of Fowler: 'It was after I met Mr. Walter Jones that real progress took place in the translation from what had been a merely scientific and laboratory discovery into a practical commercial process; when I say "commercial" I mean one that is capable of being carried out in a practical manner on a large scale.' "

The District Court's interpretation of the Court of Appeals' opinion confirms the same point (8 F. Supp. 329, 332):

> "What the scientist had done is described by the Court of Appeals as a biochemical process. What the Court of Appeals credited Jones and his collaborators with was a successful reduction to practice of the operation of scientific principle, brought to light by the discovery and development of suitable apparatus and processes."

If the decision of the court below had followed the principles enunciated by this Court in *Corona* v. *Dovan* (276 U. S. 358), it would have realized that reduction to commercial use was not necessary to establish prior invention by the scientists and would consequently have found that Jones was not the inventor of the biochemical process described in the process patents.

B. The patents in suit are invalid because they were improperly considered collectively by the court below.

The leading decision of this Court in

> *Altoona Publix Theatres* v. *American Tri-Ergon Corp.*, 294 U. S. 477,

condemning the collective treatment of patents and claims of one patent, was not decided until after the opinion of the court below in the Milwaukee case. In the *Altoona* case this Court said that each claim must stand or fall, as itself sufficiently defining invention, independently of the others. In the language of Mr. Justice Stone (p. 487):

> "The Court of Appeals, in upholding the patent, made no examination of its separate claims, but treated the patent throughout as though it were a combination of five distinct elements, the photoelectric cell, the arcuate flexing of the film, the flywheel, the flexible connection of the flywheel and the optical slit, although nowhere in the patent is any such combination claimed. The patent thus upheld is one which was neither claimed nor granted. Under the statute it is the claims of the patent which define the invention. * * * And each claim must stand or fall, as itself sufficiently defining invention, independently of the others. * * * As none of the flywheel claims as drawn define an invention, none can be aided by reading into it parts of the specifications, or of other claims, which the patentees failed to include in it."

It is not necessary to study the patents to determine whether or not the court below considered the patents and their claims collectively. A reading of the opinion of the court below furnishes the answer. In referring to the series of British and American patents the court below said (69 F. (2d) 577, 588):

> "As usual, in cases where such relationship exists, the problem of precisely determining in a single case what, if any, portions of the specifications or claims of the later patents embody recognition and adoption of disclosures of the earlier patents, is not easy to solve. For that reason *the patents should be considered collectively,* and if from such consideration the patents may be reconciled upon disclosure of novel additions in the later not found in the earlier which were deemed entitled to recognition, it may not be necessary, and in this case we think it is not necessary to deter-

> mine exactly all points of mere contact or of overlapping of one as against another patent."

When the court below was later referred to the *Altoona* case on the appeal from the interlocutory decree entered in this case, it denied that it had been guilty of considering the patents and claims collectively, but its denial is not convincing (90 F. (2d) 727, 730):

> "We had no intention of doing so, and we think we did not, nor did we assign reasons for not considering the claims separately in the sense which appellant contends."

It is significant that the District Court agreed with our interpretation of the Court of Appeals' opinion and in its findings of fact said (R. XI, 5052):

> "All of these patents have a very close relationship in the act and should, the Court of Appeals found, be considered collectively."

By having considered the patents collectively, the courts below followed a practice which is at variance with the decisions of this Court and of the other circuits.

C. The apparatus patent is invalid because the claims held valid and infringed do not describe the alleged invention with sufficient particularity and distinctness.

Certiorari should be granted in this case, as it was in the recent case of *Halliburton Oil Well Cementing Co.* v. *Walker,* 91 L. ed. 15, 16, 67 Sup. Ct. 6, to consider whether the important statutory requirement of distinctness and certainty in claims was correctly applied in this case.

Claim 2 of Patent No. 1,282,587 was held to have been infringed by the North Side sewage treatment works and Claim 8 of the same patent by the small experimental DesPlaines River sewage treatment works (R. I, 4-5). In

view of the insignificant size of the latter plant, we shall confine our discussion to Claim 2 although Claim 8 is subject to the same defects as Claim 2. Claim 2 reads as follows (R. XI, 5141):

> "In an apparatus for purifying sewage, comprising a tank, *means for introducing air or oxygen* at the lower part of the tank, said tank being of a size above the air-introducing means to provide a material-receiving area above and laterally of such means and beyond the direct influence of the air from such means, the tank being inclined adjacent and laterally of the air introducing means to induce a flow of material to such means from that portion of the tank beyond the influence of such means."

The claims are invalid on their face. In simple terms, Claim 2 refers to an inclined tank and means for introducing air or oxygen at the lower part of the tank. Wherein can invention be found in such a claim? Sewage cannot be treated except by placing it in some kind of tank and the basic principles of hydraulics would dictate that the tank should be inclined. Aeration of sewage is admittedly an old principle and requires some kind of means for the introduction of air or oxygen into the sewage. The claim teaches nothing beyond these well-known principles.

If Jones had discovered a "new and useful" [1] means of introducing air into sewage and if he did "particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery",[2] he might have been entitled to a patent. However, simply to claim "means for introducing air or oxygen at the lower part of the tank" adds nothing to the prior art. The claim is so broad that it includes the introduction of compressed air from perforated pipes, acknowledged by Jones to be part of the prior art (R. XI, 5537).

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[1] 35 U. S. C. A. Sec. 31.
[2] 35 U. S. C. A. Sec. 33.

When the term "means" accompanied by a functional statement is used to designate an element or part of a claim which constitutes the essence of the invention, it will be regarded as functional and the claim is void: *General Electric Co.* v. *Wabash Corp.*, 304 U. S. 364, 371; *Westinghouse* v. *Boyden Power Brake Co.*, 170 U. S. 537, 556; *Farmers Cooperative Exchange* v. *Turnbow*, 111 F. (2d) 728, 732, C. C. A. 9; *Gynex Corp.* v. *Dilex Institute*, 85 F. (2d) 103, 105, C. C. A. 2.

If it should be argued that the claims must be supplemented by the description and drawings, the answer is that no patentable element is added by the description or drawings. The description refers to the supply of air "through air distributing means, such as porous tiles or bodies by which the air is diffused", and to the supply of air "at a plurality of points through air-supplying or diffuser bodies" (R. XI, 5139). There was nothing new, however, about the diffusion of air into liquids by compression through porous stones or other materials and in his first British patent application Jones disclaimed such elements (R. XI, 5543):

> "We are of course aware that it is known (and therefore is not broadly claimed under this invention) to raise and at the same time aerate sewage and other liquids by forcing compressed air into the lower end of a pipe which dips into the liquid and to deliver this combined column or volume of air and liquid into a tank or vessel; and it is also known to deliver air or gases into sewage and other liquids in a vessel in minute bubbles by forcing it through porous stone or the like in the bottom of the vessel."

The decision below upholding the apparatus patent can be explained only by virtue of the fact that the court below considered the patents collectively and in the other patents the means of introducing air into sewage are more par-

ticularly and distinctly pointed out. For example, in Patent No. 1,286,017 it is stated (R. XI, 5155):

> "The diffusers instead of being of porous earthenware or like solid body for breaking the air up and delivering it into the liquid in minute globules, may in some cases consist of cocoanut or other textile fiber or fabric introduced into non-corrodible metal or other perforated box or chest or conduit; or textile fabric may be placed and held over a perforated plate in the air box or chest or conduit. Or again, lead wool or ribbonite of a non-corrodible metal may be employed for the purpose."

Obviously, the more detailed description in one of the process patents cannot save the apparatus patent which omits such description.

If the description in the apparatus patent had specified patentable elements and assuming that it may be proper to construe ambiguous claims in the light of the description in order to determine the inventor's intentions, the history of the application in the Patent Office reveals that Jones refused to limit the means of introducing air to diffusers or anything else but deliberately sought, and obtained, an unlimited claim to any and all "means for introducing air". The provisional specification in the British patent, on which the apparatus patent in suit is based, stated (R. XI, 5537):

> "Our invention consists of two parts, a diffuser for breaking up the air into very small bubbles near the bottom of the tank or channel of liquid, and a circulator for replacing the liquid aerated with fresh liquid to be aerated."[3]

The British patent limits the claims to "diffused fresh air" and "subjecting the liquid to a plurality of successive increments of infusions of minute bubbles of air, produced

[3] The circulator was never used in practice, leaving only the diffuser.

by forcing such air through a plurality of porous stone or like bodies" (R. XI, 5543-4).

The original American application contained similar language but Jones' solicitor, for reasons unknown, later broadened the claims to their present form (R. XI, 5338-48). Under these circumstances the intention of the patentee is clear and the broad claims cannot be saved by limiting them to the diffusers mentioned in the description (*Aluminum Co. of America* v. *Thompson Products,* 122 F. (2d) 796, 798 (C. C. A. 6)).

In the case of

> *Halliburton Oil Well Cementing Co.* v. *Walker,* 91 L. ed. 15, 67 Sup. Ct. 6,

this Court held a patent invalid for the indefiniteness of its claims and, in particular, because the claim described the most crucial element in terms of what it will do rather than in terms of its own physical characteristics or its arrangement in the new combination apparatus. This Court alluded to the fact that not one of the claims (p. 19) "has even suggested the physical structure of the acoustical resonator".

If any invention may be found in the apparatus patent involved in this suit, it must be found in the means for the introduction of air or oxygen into the raw sewage. The claims are entirely silent on the physical structure of the means whereby air or oxygen is to be introduced into the tank. The functional claims in question are subject to the same condemnation as the claims criticized in the *Halliburton* case and the other cases referred to in the opinion in that case.

Although, as we have just pointed out, reference to the descriptive portion of the apparatus patent does not vali-

date it, this discussion regarding the validity of the apparatus patent exemplifies the confusion which exists regarding the relationship between the claim in a patent and the description and drawings thereof. The general rule is that "the claims measure the invention" (*Continental Paper Bag Co.* v. *Eastern Paper Bag Co.*, 210 U. S. 405, 419, 52 L. ed. 1122). However, there is another well-established rule that the claims must be construed in the light of the description (*Schriber-Schroth Co.* v. *Cleveland Trust Co.*, 311 U. S. 211, 217). That rule must be administered along with another well-established rule that a claim otherwise invalid on account of indefiniteness cannot be saved by reading into it a limitation contained in the description (*De Cew* v. *Union B. & P. Corp.*, 57 F. Supp. 388, 395-6 (D. C. N. J.) and *In re Allen*, 111 F. (2d) 173 (C.C.P.A.)). The result of these conflicting and contradictory rules, all supported by good authority, is that the rule applicable to any specific case is difficult of ascertainment. The confusion is readily apparent in the discussion of the subject in Walker on Patents (Dellers Ed.) Sec. 261, which seeks to expound the rule.*

There is apparently a growing tendency on the part of the Supreme Court to require that the invention claimed be adequately described within the claim itself. In

General Elect. Co. v. *Wabash Appliance Corp.*, 304 U. S. 364,

this Court refers to the rule that claims are to be construed in the light of the description in language which casts doubt upon the Court's intention to adhere to the rule (p. 373):

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* Confusion regarding the form and content of patent applications discussed in XXII J. of Patent Office Society, p. 24.

> "Assuming that in a proper case a claim may be upheld by reference to the descriptive part of the specification in order to give definite content to elements stated in the claim in broad or functional terms,[14] the specification of the Pacz patent does not attempt in any way to describe the filament, except by mention of its coarse-grained quality. Even assuming that definiteness may be imparted to the product claim by that part of the specification which purportedly details only a method of making the product,[15] the description of the Pacz process is likewise silent as to the nature of the filament product."

In the four cases cited in footnotes 14 and 15 of the above quoted case, reference is made to the rule that the claim may be considered in connection with the description but in three of the cases the patent was held invalid and in the fourth no infringement was found.

Although it appears that in the *Halliburton* case the specifications and drawings disclosed the physical structure of the new element (91 L. Ed. 18), the court emphasized (91 L. ed. 19):

> "But no one of the *claims* on which this judgment rests has even suggested the physical structure of the acoustical resonator."

The public interest in the scope and sufficiency of patent claims was recently emphasized in

> *United Carbon Co.* v. *Binney & Smith Co.*, 317 U. S. 228,

as follows (p. 232-3):

> "The courts in determining the questions of invention and infringement brought to them by respondent, no less than the parties-litigant, need and may insist upon the precision enjoined by the statute. To sustain claims so indefinite as not to give the notice required by the statute would be in direct contravention of the public interest which Congress therein recognized and sought to protect."

In the same case the patentee urged that the claims must be read in the light of the specification and this Court, in holding that the description in the specification, like the claim, was almost entirely in terms of function, again referred to the rule of construction in language which appears to cast doubt upon its validity by saying (p. 234-5):

> "Assuming the propriety of this method of construction * * *"

That the claims involved in this case do not comply with the statutory requirements is evident from the following definition in the *United Carbon* case of the statutory requirement (p. 236):

> "The statutory requirement of particularity and distinctness in claims is met only when they clearly distinguish what is claimed from what went before in the art and clearly circumscribe what is foreclosed from future enterprise. A zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims would discourage invention only a little less than unequivocal foreclosure of the field. Moreover, the claims must be reasonably clear-cut to enable courts to determine whether novelty and invention are genuine."

Patent applications are being prepared every day and it is important that the Supreme Court settle and determine the scope and significance of the patent claim. Reference to the statute makes it evident that the description and claim were intended to serve two independent functions. The description was intended to serve the purpose of containing such a complete description and explanation that any person skilled in the art could make or use the invention. Inasmuch as almost all inventions are improvements upon the old art, such a description would necessarily include elements old in the art. The claim was intended to perform an entirely different function, namely, to point out

with particularity and distinctness the part, improvement or combination which is claimed to constitute the invention (See Robinson on Patents, Secs. 482, 483, 505, 506, 512).

There is no room for construction of one by the other; the description and the claim must each rest on its own feet. No patent is valid if it lacks a description meeting the requirements of the statute and no patent can be valid if its claims fail to meet the requirements of the statute relating to the content of claims. The practice of construing the claim in the light of the description has led to endless confusion and uncertainty. In the instant case the Supreme Court can lay down the definite rule that claims otherwise invalid for indefiniteness and breadth or for any other reason cannot be sustained by limiting or broadening them by material contained in other parts of the patent. The claim itself must define the invention.

Conclusion.

We respectfully submit that this Court should issue its writ of *certiorari* to review and supervise these proceedings on the grounds set forth in our petition and argued in this brief, a short outline of which appears in the index, any one of the three principal grounds set forth being sufficient to justify this Court's taking this case.

Respectfully submitted,

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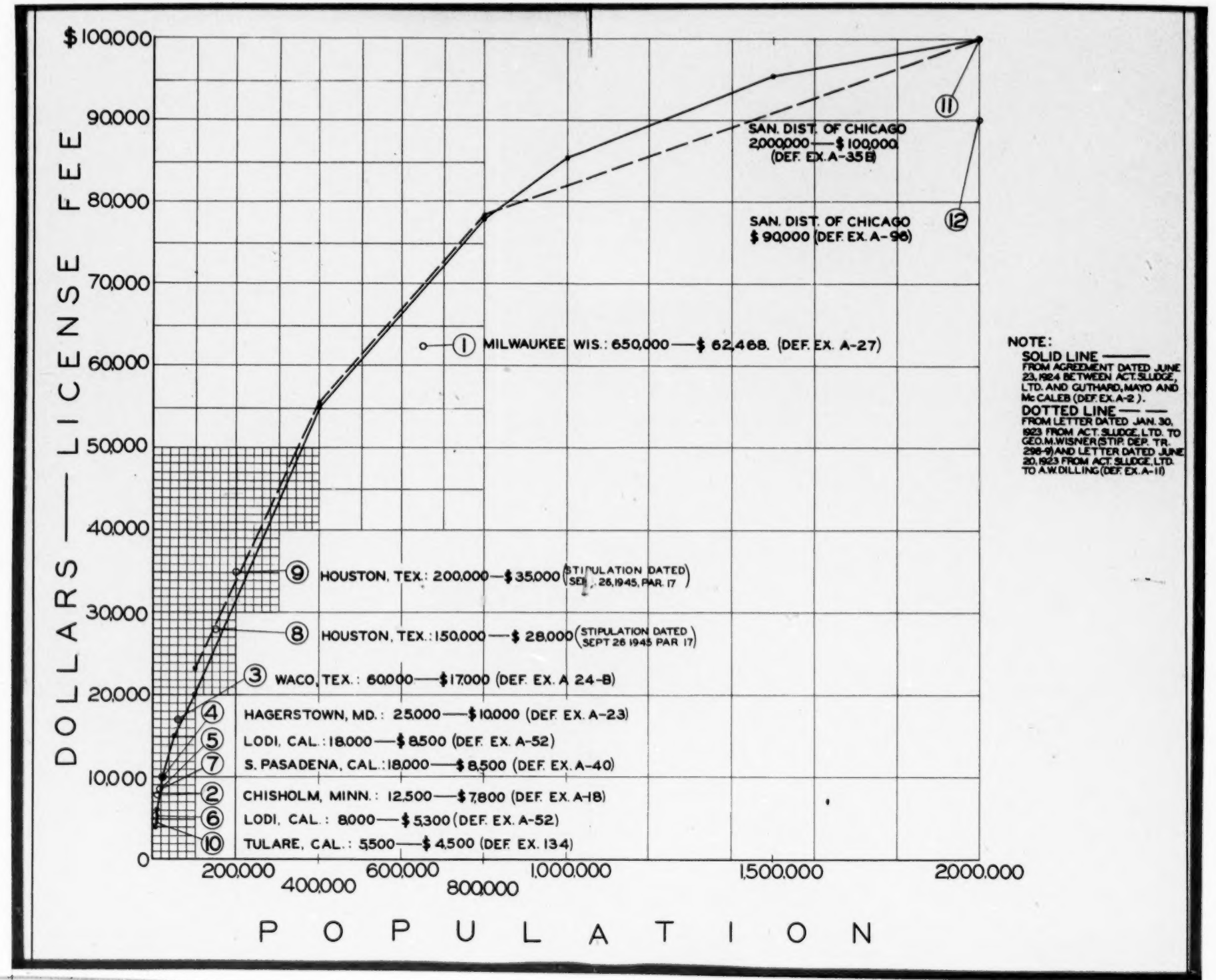
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9 HOUSTON, TEX.: 200,000 — $35,000 (STIPULATION DATED SEPT. 26, 1945, PAR. 17)
8 HOUSTON, TEX.: 150,000 — $28,000 (STIPULATION DATED SEPT 26 1945 PAR 17)
3 WACO, TEX.: 60,000 — $17,000 (DEF. EX. A 24-B)
4 HAGERSTOWN, MD.: 25,000 — $10,000 (DEF. EX. A-23)
5 LODI, CAL.: 18,000 — $8,500 (DEF. EX. A-52)
7 S. PASADENA, CAL.: 18,000 — $8,500 (DEF. EX. A-40)
2 CHISHOLM, MINN.: 12,500 — $7,800 (DEF. EX. A-18)
6 LODI, CAL.: 8000 — $5,300 (DEF. EX. A-52)
10 TULARE, CAL.: 5,500 — $4,500 (DEF. EX. 134)
NOTE:
SOLID LINE ———
FROM AGREEMENT DATED JUNE 23, 1924 BETWEEN ACT. SLUDGE, LTD. AND GUTHARD, MAYO AND Mc CALEB (DEF. EX. A-2).
DOTTED LINE — — —
FROM LETTER DATED JAN. 30, 1923 FROM ACT. SLUDGE, LTD. TO GEO. M. WISNER (STIP. DEP. TR. 298-9) AND LETTER DATED JUNE 20, 1923 FROM ACT. SLUDGE, LTD. TO A.W. DILLING (DEF. EX. A-11)